

CLAIMS

1. A liquid crystal display device comprising a pair of substrates and a liquid crystal layer held between the pair of substrates,

at least one of the pair of substrates being provided with plural electrodes for applying an electric field to the liquid crystal layer, a protecting film for protecting at least one of the plural electrodes and oriented films formed to cover the protecting film or the electrodes, characterized in that the film thickness of the protecting film is in the range of from 0.1 μm to 0.7 μm , and

an AC residual image of the oriented films is less than 8 %.

2. The liquid crystal display device according to claim 1, characterized in that a specific resistance of the liquid crystal layer is $10^{10} \Omega\cdot\text{cm}$ or more.

3. The liquid crystal display device according to claim 1 or 2, characterized in that at least one of the oriented films is an organic polymer containing at least one of a polymer and an oligomer in which a weight substance with a long-chain alkyl group applied to an amine component or an acid sentence is at least 5 % and at most 30 % of the total molar amount.

4. The liquid crystal display device according to claim 3, characterized in that a weight average molecular weight

Solv
A1
CW
092602

of the polymer and the oligomer is at least 2,000 and at most 30,000.

5. The liquid crystal display device according to claim 3 or 4, characterized in that the polymer and the oligomer contain a long-chain alkylene group of at least one of a main chain type and a terminal type.

6. The liquid crystal display device according to any of claims 1 to 5, characterized in that the oriented film is an organic polymer of a polymer and/or oligomer amic acid imide type, a polymer and/or oligomer amide-imide type, a polymer and/or oligomer imidosiloxane type or a polymer and/or oligomer amide-imide type containing a long-chain alkylene group.

7. A liquid crystal display device comprising a pair of substrates and a liquid crystal layer held between the pair of substrates,

at least one of the pair of substrates being provided with at least a pair of electrodes for applying an electric field to the liquid crystal layer,

protecting films for protecting the plural electrodes and

oriented films formed on the protecting films and the electrodes, characterized in that

the film thickness of the protecting films is less than 0.5 μm , and

an AC residual image of the oriented films is less than

8 %.

Sub A
end

Sub A2

09589788 " 095604